REMARKS

The official Office Action dated December 15, 2005, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

Claims 1, 2, and 8 are being cancelled and rewritten together as newly submitted Claim 22. The dependencies of the remaining claims have been adjusted accordingly. In addition, Claim 17 is amended to note that the scale of hardness being used for measuring the hardness of the foam is the Shore hardness scale. Attached herewith please find a copy of a short article from the site of www.machinedesign.com. As can be seen, the usual scale of hardness used for thermoplastic materials is the Shore scale. This would be understood by a person of ordinary skill in the art. Consequently, it is respectfully submitted that no new matter is being added to the application.

The Examiner questioned the Title of the application, and required a new title that is clearly indicative of the invention to which the claims are directed. All of the claims of this application are directed to a flat display apparatus. It is respectfully submitted that upon searching of the application electronically, the person of skill in the art would find the Abstract would have a better appreciation of what the invention is. It is noted that the Patent Office discourages long titles. Consequently, it is respectfully requested that the Examiner either withdraw the requirement for a new title or be more specific in what is being required of the Applicants.

Claim 17 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for not specifying what units of foam hardness are being used. As noted above,

Claim 17 is being amended to indicate the Shore scale of hardness. This is what would be normally understood by a person of skill in the art reviewing this application. Support is found at the article cited in www.machinedesign.com. A withdrawal of this rejection is respectfully requested.

Claims 1 – 7, 16 and 18 – 20 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,255,778 to Yoshikawa et al. (hereinafter Yoshikawa). Claims 1 – 11 and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication US 2003/0085649 A1 to Wachi et al. (hereinafter Wachi). Claims 12 – 14 were rejected under 35 U.S.C. §103 as being unpatentable over Yoshikawa taken in view of U.S. Patent Number 6,417,619 to Yasunori et al. (hereinafter Yasunori). Claim 21 was rejected under 35 U.S.C. §103 as being unpatentable over Yoshikawa. Any reapplication of these rejections would be respectfully traversed.

The present invention as currently claimed in Claim 22 is a flat display apparatus having a flat display panel comprising certain specific structure. A protective sheet is attached to the display screen surface of the flat display panel. The protective sheet is an optical filter. This optical filter is formed by laminating an ambient light antireflective layer, an infrared radiation absorbing and color-tone correcting layer, and an electromagnetic-wave blocking layer. The optical filter is attached to the flat display panel by means of a transparent adhesive material. The optical filter is formed by laminating, in order, the electromagnetic-wave blocking layer, the infrared radiation absorbing and color-tone correcting layer, and the ambient light antireflective layer. The

filter is attached to the display screen surface of the flat display panel with the electromagnetic-wave blocking layer facing the flat display panel.

In contrast to the present invention as claimed, in Yoshikawa, an antireflection film 6, a conductive mesh member 3, and a heat-ray blocking film 5 are not arranged in the order as in the claimed invention. Further, a transparent base plate is disposed between the antireflection film 6 and the conductive mesh member 3.

In Wachi, an antireflection layer 6, a near infrared ray shielding layer 9 and an electromagnetic-wave shielding layer 15 of a front protective plate 13 are arranged in order. However, the front protective plate 13 of Wachi has a transparent substrate 14 arranged between the electromagnetic-wave shielding layer 15 and an adhesive layer 7 as shown in Figure 2, or arranged between the near infrared ray shielding layer 9 and the electromagnetic-wave shielding layer 15 as shown in Figure 3.

Consequently, neither Yoshikawa or Wachi can anticipate the present invention because they do not teach the structure of the protective sheet as claimed. Further, it would not be obvious to rearrange the structure as disclosed in the references because there is no teaching or suggestion to do so.

Yasunori does not contribute anything to cure the deficiencies of the above noted references.

The claims dependent directly or indirectly from Claim 22 contain further distinctions and limitations and, thus, are patentable as well over the references.

The Examiner's indication that Claim 15 was only objected to as dependent from a rejected base claim and would be considered allowable if rewritten into independent form

is noted with appreciation. At the present time, the Applicants believe that all of the claims are allowable and, consequently, have not rewritten Claim 15.

Accordingly, in view of all of the above and the attached, it is respectfully submitted that clear differences exist between the present invention as claimed and the prior art relied upon by the Examiner. It is further submitted that these differences are more than sufficient that the present invention as claimed would not have been obvious over the prior art.

An early Notice of Allowance is respectfully requested.

In the event that this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension or any fees which may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 107156-00216.

Respectfully submitted,

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Enclosure: Jean M. Hoffman, "Understanding hardness," www.machinedesign.com, 3 pages

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Published 8/21/2003

Understanding hardness

A better understanding of hardness lets designers match the best soft-touch elastomer to their application.

Jean M. Hoffman
Associate Editor

Hardness is often one of the first criteria considered when choosing thermoplastic elastomers (TPEs). But confusion can arise when discussing hardness because of the variety of ways to measure it.

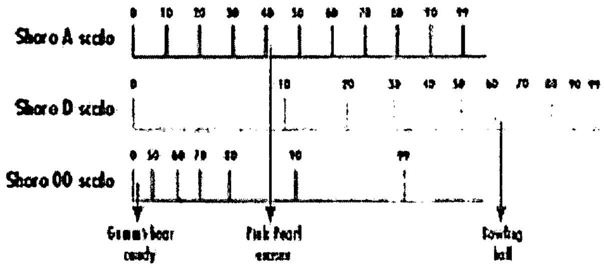
A gellike 30 Shore 00 Versaflex TPE is engineered to serve as ultrasoft cushions in bicycle seats, shoes, and furniture as well as nontacky grips on personal care products and sports equipment.

Hardness measurement

Hardness is defined as a material's resistance to indentation when a static load is applied. The most common instrument used for measuring hardness is Shore Durometer. It measures the depth of penetration of an indenter on a scale from zero to a tenth of an inch (0.1 in.). A zero reading indicates that penetration depth was at its maximum; a reading of 100 specifies there was no penetration.

The Shore A scale is the most common scale for TPEs, and the Shore A Durometer consists of a blunt indenter with moderate spring force. Shore A instruments are less accurate when readings are above 90. Shore D Durometers are more appropriate when hardnesses exceed 90 Shore A. This instrument uses a sharper indenter and higher force. Softer TPEs (below 5 Shore A)

use a Shore 00 scale. Most soft gels and foam rubbers are measured using this scale.



Relative relationship between Shore hardness scales.

Methods

Most materials resist initial indenture but eventually yield over time due to creep or relaxation, so Durometer readings can either be taken instantaneously or after a specified delay - typically on the order of 5 to 10 sec. Instantaneous readings typically give higher (or harder) results than delayed readings. But delayed readings are more representative of hardness and resiliency Weak, less-elastomeric materials creep more than higher strength, more resilient materials.

Hardness is often confused with other properties such as flexural modulus or Coefficient of Friction (COF). Flexural modulus measures the materials' resistance to bending, and COF measures the resistance an object experiences as it slides along the TPE surface. Although flexural modulus and COF also affect the overall feel and flexibility of the TPE, they are different properties than hardness which measures a materials' resistance to penetration.

TPEs, TPUs, and TPVs for softer designs

From ultrasoft thermoplastic elastomers (TPEs) and high-performance rubberized thermoplastic polyurethanes (TPUs) to alloyed thermoplastic vulcanizates (TPVs) GLS Corp., McHenry, Ill., has expanded its array of options for putting chemical-resistant, sure-grip surfaces on new designs.

Versaflex CL2003 is reportedly one of the softest commercially available TPEs with a gellike hardness of 30 Shore 00. It is injection moldable and extrudable, and comes in free-flowing pellets. The clear TPE is engineered to meet the needs of ultrasoft applications including gel bicycle seats, wrist pads, shoe sole inserts, and furniture arm rests, as well as grips for personal-care products.

Versollan TPUs are second-generation high-performance rubberized TPU elastomer alloys that rank as some of the softest in their class at 45 Shore A. Made from specialty TPUs from BASF Corp., Wyandotte, Mich., these alloys serve as handles and grips for hand and power tools, lawn and garden equipment, and recreational gear. They offer a balance of softness and high performance, and fast set up rates relative to nonalloyed TPUs.

Versalloy 8000 TPV alloys come from the alliance between GLS and Netherlands-based DSM. These alloys have good tear and tensile properties like heat and chemical resistance, while offering good flow for easy processing. Hardness ranges from 45 to 70 Shore A.

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